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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/728,518 | 12/04/2003 | Christopher N. Kline | END920030130US1 | 9133 |
| 26502 | 7590 | 01/16/2007 | | |
| IBM CORPORATION IPLAW IQ0A/40-3 1701 NORTH STREET ENDICOTT, NY 13760 | | | EXAMINER PANTOLIANO JR, RICHARD | |
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| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|--|--|--|
| Office Action Summary | Application No. 10/728,518 | Applicant(s) KLINE, CHRISTOPHER N. | |
| | Examiner Richard Pantoliano Jr | Art Unit 2194 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

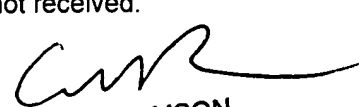
Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 20031204.


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____

DETAILED ACTION

1. This is the initial office action for Application# **10/728,518** filed on **04 December 2003**. **Claims 1-20** are currently pending and have been considered below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1, 12 and 13** are rejected under 35 U.S.C. 102(e) as being anticipated by Sonkin et al (US Pat: 7,136,868).

4. As per **Claim 1**, Sonkin et al discloses the invention substantially as claimed including a computer program product for deleting objects used or managed by an application or application instance, said program comprising:

- a) a computer readable medium; first program instructions for identifying said objects (Col. 7, lines 28-45);
- b) second program instructions for writing an executable program to delete said objects which were identified (Col 8, lines 20-36); and
- c) wherein said first and second program instructions are recorded on said medium (Col 15, lines 1-17).

5. As per **Claim 12**, Sonkin et al further discloses third program instructions for identifying said application instances, and wherein said first program instructions queries said application instance for a listing of its objects (Col 7, lines 28-45).

6. As per **Claim 13**, being directed toward the system implementing the computer program product as disclosed in **Claim 1**, this claim is rejected for the same reasoning as **Claim 1**.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 2-5 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sonkin et al in view of Chandra et al (US Pat: 6,058,389).

9. As per **Claim 2**, Sonkin et al discloses the computer program product as set forth in claim 1, but does not disclose wherein said first program instructions identify a queue object and determine whether said queue object contains a work item.

10. Chandra et al discloses the identification of items within a queue object that will be removed from the system (Col 33, Lines 32-52 and Col 34, lines 27-67).

Art Unit: 2194

11. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Sonkin et al's teachings involving the deletion of objects with Chandra et al's teachings involving the identification of items within a queue object. One would have been motivated by the need to ensure that all pending tasks in the queue were completed before removing the queue from the system (Col 34, lines 27-67).

12. As per **Claim 3**, Chandra et al discloses wherein said queue object contains a work item, and wherein a command to clear said work item is given (Col 34, lines 50-67) (A command is given to halt execution or wait in a loop to allow for the work item to clear).

13. As per **Claim 4**, Chandra et al discloses wherein said first program instructions also determine if said queue object is locked (Col 17, lines 41-63).

14. As per **Claim 5**, Chandra et al discloses wherein said queue object is a local queue (Figure 3, item 324).

15. As per **Claim 14**, being directed toward the system implementing the computer program product of **Claim 2**, this claim is rejected for the same reasoning as **Claim 2**.

Art Unit: 2194

16. **Claims 6 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sonkin et al in view of Chandra et al and in further view of Clark et al (US Pat: 7,111,063).

17. As per **Claim 6**, Sonkin et al in view of Chandra et al disclose the computer program product as set forth in **Claim 2**, but do not disclose wherein said queue object is an alias queue.

18. Clark et al discloses the use of alias queues in a database system (Col 12, lines 21-35).

19. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Sonkin et al with the alias queue teachings disclosed by Clark et al. One would have been motivated by the fact that an alias queue is simply an object that points to a real queue, rather than a regular queue that would require the removal of the items contained within the queue, so it can be managed like any other object that requires no resources other than memory and be deleted.

20. As per **Claim 7**, Sonkin et al in view of Chandra et al disclose the computer program product as set forth in **Claim 2**, but do not disclose wherein said queue object is a remote queue.

21. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Sonkin et al with the alias queue teachings disclosed by Clark et al. One would have been motivated by the fact that since a

Art Unit: 2194

database system will often have resources allocated throughout a distributed system, it would be necessary to go out to all components of that system in which objects are allocated to the database, including those allocated on computers that are remotely accessed by the computer that hosts the primary functionality of the system.

22. **Claims 8 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sonkin et al in view of Chandra et al and in further view of Chen et al (US Pat: 6,625,117).

23. As per **Claim 8**, Sonkin et al discloses the computer program product as set forth in **Claim 1**, but does not disclose third program instructions for identifying channels used by other applications to lock and access a queue object, and said second program instructions also writes into said executable program a command to stop said channels; and wherein said third program instructions is recorded on said medium.

24. Chandra et al discloses the identification of items within a queue object that will be removed from the system (Col 33, Lines 32-52 and Col 34, lines 27-67).

25. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Sonkin et al's teachings involving the deletion of objects with Chandra et al's teachings involving the identification of items within a queue object. One would have been motivated by the need to ensure that all pending tasks in the queue were completed before removing the queue from the system (Col 34, lines 27-67).

Art Unit: 2194

26. Chen et al discloses the issuing of stop instructions to a channel identified for a queue (Col 4, line 60 – Col 5, line40).

27. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Sonkin et al with the stop channel instruction teachings of Chen et al. One would have been motivated by the need to ensure that no other clients in the system add or remove items from a queue while the system is in the process of removing items from the queue before deletion. Without doing so, the system could be left indefinitely attempting to empty the queue without being able to do so, since the queue would constantly have new items added.

28. As per **Claim 9**, Chandra et al discloses wherein the first program instructions identifies a queue object and determines whether said queue object is locked, and if so, warns an operator that said queue object may remain locked after execution of said executable program despite stoppage of said channels (Col 33, Lines 32-52 and Col 34, lines 27-67).

29. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sonkin et al in view of Himmel et al (US PG PUB: 2004/0054896).

30. As per **Claim 10**, Sonkin et al discloses the computer program product as set forth in **Claim 1**, but does not disclose wherein said first program instructions identify a security object.

Art Unit: 2194

31. Himmel et al disclose the identification and deletion of security objects (para. [0059] and [0100]-[0110]).

32. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the object deletion teachings of Sonkin et al with the security object identification and deletion teaching so Himmel et al. One would have been motivated by the need to control access to the data being processed by Sonkin et al's system. Since objects are being deleted from the system, the associated access privileges to those objects would no longer be necessary to maintain.

33. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over Sonkin et al in view of Bhattal et al (US Pat: 6,934,247).

34. As per **Claim 11**, Sonkin et al discloses the computer program product as set forth in **Claim 1**, but does not disclose wherein said first program instructions identify a channel object.

35. Bhattal et al discloses the identification and deletion of a channel (Col 9, lines 28-67).

36. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Sonkin et al with the channel teachings of Bhattal et al. One would have been motivated by the fact that Sonkin et al is concerned with deleting all objects associated with the particular database system and, since channels to allow queries to be delivered to the database system would also be a necessary

Art Unit: 2194

resource requiring clearing, it would also fall under the purview of objects that it would want to remove in its script.

37. **Claims 15-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chandra et al in view of Chen et al.

38. As per **Claim 15**, Chandra et al discloses the invention substantially as claimed including a method for deleting a queue object managed by an application or application instance, said method comprising the steps of:

- a) clearing work item(s) on said queue (Col 33, lines 32-52 and Col 34, lines 27-67); and
- b) after the clearing step, deleting said queue object (Col 33, lines 32-52 and Col 34, lines 27-67).

39. Chandra et al does not disclose the steps of identifying channels used by other applications or other application instances or stopping said channels.

40. Chen et al discloses the steps of identifying and stopping channels used to access a queue (Col 5, lines 7-40).

41. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the queue management teachings of Chandra et al with the channel identification and stop instruction teachings of Chen et al. One would have been motivated by the need to ensure that no other clients in the system add or remove items from a queue while the system is in the process of removing items from the queue

Art Unit: 2194

before deletion. Without doing so, the system could be left indefinitely attempting to empty the queue without being able to do so, since the queue would constantly have new items added. Since Chandra et al is concerned with ensuring that no other items are processed by the queue when trying to delete it (Col 34, lines 27-67), the most expedient way to do so would be to make the queue inaccessible by those attempting to access the queue by closing the channels used to access said queue.

42. As per **Claim 16**, Chandra et al further discloses wherein said application or application instance which manages said queue object is a middle ware application or application instance (Col 1, lines 56-67).

43. As per **Claim 17**, Chen et al discloses wherein the identifying step is performed by querying said application or application instance which manages said queue object (Col 5, lines 7-40).

44. As per **Claim 18**, Chandra et al discloses the step of warning an operator that said queue object may remain locked after stoppage of said channels (Col 33, lines 49-52 and Col 34, lines 27-67).

45. As per **Claim 19**, being directed toward the computer program product containing code for implementing the steps of the method of **Claim 15**, this claim is rejected for the same reasoning as **Claim 15**.

Art Unit: 2194

46. As per **Claim 20**, being directed toward the computer program product containing code for implementing the steps of the method of **Claim 17**, this claim is rejected for the same reasoning as **Claim 17**.

Conclusion

47. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ault et al (US Pat: 6,976,260), Willen et al (US Pat: 7,159,221), Disbrow (US Pat: 5,224, 215), Simmons et al (US Pat: 6,704,767), Ono et al (US PG PUB: 2003/0112802), Nevarez et al (US Pat: 6,609,158) and Monnie et al (US PG PUB: 2005/0086237).

48. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Pantoliano Jr whose telephone number is (571) 270-1049. The examiner can normally be reached on Monday-Thursday, 8am - 4 pm EST.

49. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571)272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Art Unit: 2194

50. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RP

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1/05/07


WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER